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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,900	10/21/2003	Jerome Daviot	60937-0172-US	3765

9629 7590 01/03/2005

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WASHINGTON, DC 20004

EXAMINER
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AHMED, SHAMIM

ART UNIT	PAPER NUMBER
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1765

DATE MAILED: 01/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/688,900

**Applicant(s)**

DAVIOT ET AL.

**Examiner**

Shamim Ahmed

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/27/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 10/7/04 have been fully considered but they are not persuasive.

Applicants argue that Yata et al (6,147,042) do not teach the claimed cleaning composition comprising phosphoric acid ( $H_3PO_4$ ), which is a small molecule but not a polymeric molecule such as polyphosphoric acid-urea condensate or phosphoric acid-urea copolymer.

In response, examiner states that the argument is not persuasive because the above-mentioned condensate or copolymer is a reaction product of orthophosphoric acid ( $H_3PO_4$ ), and urea may be used alone or in combination (col.4, lines 22-25).

Therefore, Yata et al teach a composition comprising phosphoric acid.

Applicants also argue that Chen et al (6,162,738) do not teach the deficiency of the primary reference Leon et al (6,030,932) because Chen et al does teach the use of various mineral acids in the cleaning composition including phosphoric acid but hydrochloric acid is specifically preferred, thus teaching away from the combination use of phosphoric acid.

In response, examiner states that the argument is not persuasive because Chen et al teach the functional equivalency of mineral acids such as phosphoric acid, nitric acid and sulfuric acid in a cleaning composition (see the rejection).

Additionally, examiner states the use of a preferred constituent in a composition is **a way** to use the constituent but not teaching **away**.

Therefore, the rejection of the previous office action is repeated herein as below:

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1,3-4, and 14-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yata et al (6,147,042).

Yata et al disclose a cleaning composition comprising phosphoric acid and at least one alkaline compound such as hydroxylamine (col.3, lines 58-col.4, lines 22).

Yata et al also disclose that the phosphoric and the hydroxylamine content is preferably 10 weight percent (%) or less and the balance is water, which would be at least about 75% (col.4, line 39-41).

Yata et al do not explicitly teach that the hydroxylamine having the claimed structural formula.

However, it would have been obvious that Yata et al's hydroxylamine salt have the claimed general formula.

As to 14, Yata et al teach that the cleaning composition also comprises surfactants (col.5, lines 7-10).

As to claims 17-22, Yata et al teach no other acid compounds, fluorine-containing compounds and no other components are added to the composition.

As to claim 23, phosphoric acid is conventional to have about 85% by weight.

As to claim 24, Yata et al teach the cleaning composition comprises water or about 75% and phosphoric acid of about less than 10% (discussed above) and rest of the compounds such as quaternary ammonium compound, hydroxylamine derivative, alkanolamine, etc. are optionally added to the composition.

Therefore, Yata et al reads on the claim 24 as all other compounds are optional to be added to the composition.

5. Claims 1-13 and 25-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leon et al (6,030,932) in view of Chen et al (6,162,738).

Leon et al disclose a cleaning composition comprises water, alkaline compound such as hydroxylamine or quaternary ammonium hydroxide, a fluorine-containing compound such as ammonium bifluoride and nitric or sulfuric acid (col.4, lines 31-59 and col.5, lines 25-27).

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Leon et al fail to disclose that the composition comprises phosphoric acid.

However, in a cleaning composition, Chen et al teach that suitable mineral acid such as phosphoric acid, nitric acid and sulfuric acid (col.7, lines 17-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of claimed invention to modify Leon et al with Chen et al by replacing nitric acid with phosphoric acid because both the phosphoric acid and nitric acid are functional equivalent as taught by Chen et al.

As to claim 2, Leon et al teach that the pH of the composition is maintained in the range of 2-6 (col.5, lines 13-21).

As to claims 7-9, Leon et al teach that the cleaning composition also includes other acid compounds such as lactic acid as corrosion inhibitor, wherein the corrosion inhibitor content is in minor amount (col.6, lines 5-11).

As to claims 10-11, Leon et al teach that the composition also comprises fluoride-containing compound such as ammonium bifluoride of about 0.5 to 10% by weight (col.4, lines 50-59).

As to claims 25-31, Leon et al teach that the concentration of hydroxylamine is in the range of 0.1% to 10% (col.5, lines 45-48) and the composition include a chelating agent in the range of 5 ppm to about 5000 ppm by weight (col.5, lines 54-64) and also teach that a surfactant is also added to the composition in very minor amount such as 0.1-100 ppm (col.5, lines 65-col.6, lines 5 and claims 12-19).

Leon et al fail to disclose the exact concentration of the claimed compounds but it would have been obvious to optimize as the optimization of a result effective variable involves only routine skill in the art.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shamim Ahmed whose telephone number is (571) 272-1457. The examiner can normally be reached on M-Thu (7:00-5:30) Every Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine G Norton can be reached on (571) 272-1465. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Shamim Ahmed  
Examiner  
Art Unit 1765

SA  
January 2, 2005